



Epidemiology of COVID-19 Outbreaks/Clusters in Ireland

Weekly Report

Prepared by HPSC on 11th January 2021

Week 1 2021 (week ending 9th January 2021)

Note: Data are provisional

This report includes data extracted from CIDR on 4th January 2021 at 09:15am and includes COVID-19 outbreaks notified on CIDR up to midnight 09/01/2021.

Total Number of COVID-19 outbreaks notified since week 10	10,988
Number of COVID-19 outbreaks notified from week 32 (02/08/2020) onwards	8,722
Number of COVID-19 outbreaks notified since week 32: OPEN	6,123
Number of COVID-19 outbreaks notified since week 32: CLOSED	2,599
Number of COVID-19 outbreaks notified in week 1 2021	226

Due to the surge in case numbers in recent days, there is a delay in reporting of outbreaks to the national surveillance system (CIDR) and the linking of cases to outbreaks. Therefore, the number of outbreaks and linked cases in this report are likely to be underestimates.

The COVID-19 outbreak definition is available in appendix 2 of this report and on the HPSC website at: <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/covid-19outbreakcasedefinitionforireland/>

Please note COVID-19 outbreaks and cases are continuously validated/updated on Ireland's national Computerised Infectious Disease Reporting System (CIDR).

Sincere thanks are extended to all those who are participating in the collection of data and reporting of data used in these reports. This includes the HSE COVID-19 Contact Management Programme (CMP), staff in ICU units, notifying clinicians, laboratory staff, public health doctors, nurses, surveillance scientists, microbiologists and administrative staff.

Note: Data are provisional

Summary (week 32 2020 to week 1 2021)

8,722 outbreaks have been reported from week 32 onwards (week beginning 02/08/2020; the second wave of COVID-19 infection in Ireland) and key outbreak locations are as follows:

- 6,551 (75%) were in private houses
- 158 (1.8%) were reported in hospitals
- 187 (2.1%) were reported in nursing homes
- 186 (2.1%) were reported in residential institutions
- 1,640 (18%) were reported in a range of other settings, including workplaces (n=329; 3.8%), restaurant/cafés (n=56; 0.6%) and travel/transport related settings (n=48; 0.6%). See Table 1 for further details.

2,599 outbreaks have been closed and 6,123 outbreaks are open (See appendix 1 for breakdown of outbreaks by location and outbreak status. Note that it is common practice not to close private house outbreaks on CIDR due to the large volume of outbreaks in this category.)

10,988 COVID-19 outbreaks have been reported in Ireland since week 10 2020 (Figure 1).

Summary (week 1, 2021)

In **week 1** 2021, there were **226** COVID-19 outbreaks notified.

- The overall number of outbreaks notified in week 1 increased by 72 compared to week 53
- There were 17 new acute hospital outbreaks reported this week
- There were 52 nursing home and six community hospital/long stay unit outbreaks notified in week 1
- There were 49 residential institution outbreaks reported
- Ten outbreaks were associated with childcare facilities or with school children +/- school staff in week 1
- There were no travel or transport-associated outbreaks
- There were 26 workplace outbreaks notified, locations are summarised in the workplaces section of this report

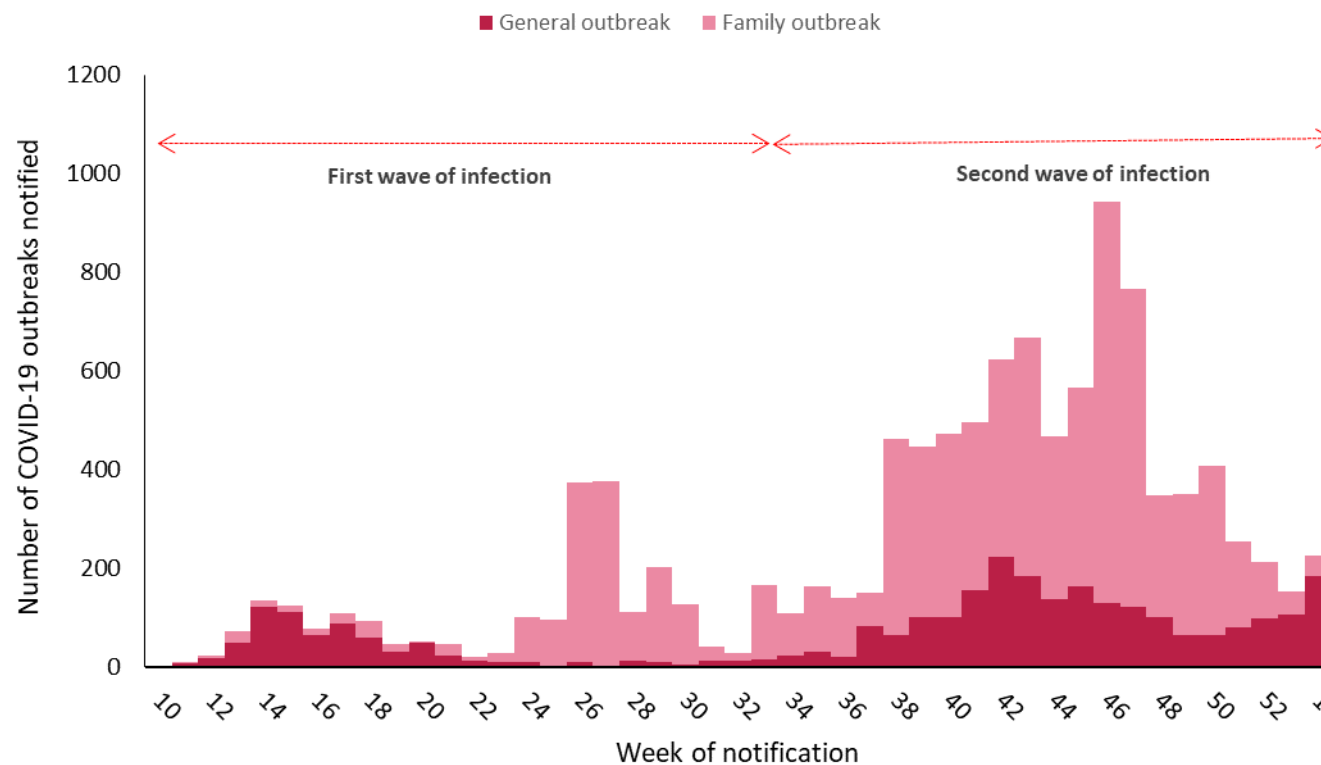


Figure 1: Epi-curve of COVID-19 outbreaks in all settings notified in Ireland by week of notification and outbreak type (see technical note 5) to midnight on 09/01/2021, N=10,988. *Data source: CIDR*

Dashed red arrows indicate the timeline of the first and second waves of COVID-19 infection in Ireland (Second wave of infection commenced in week 32; week beginning 02/08/2020).

***Note:** Family outbreaks reported in July (weeks 26 and 27) were composed largely of late notified outbreaks from the period March to May.

Note: Data are provisional

Table 1: Number of COVID-19 outbreaks notified in Ireland by outbreak location and by week of notification from 02/08/2020 to midnight on 09/01/2021, and difference in number of outbreaks notified in week 1 compared to the previous week, N=8,722

Outbreak location	Week of Outbreak Notification									Difference in number of outbreaks notified since last week	Total (Week 32-1)
	32-46	47	48	49	50	51	52	53	1		
Hospital	62	13	9	7	9	9	9	23	17	-6	158
Nursing home	73	5	6	5	3	9	12	22	52	+30	187
Community Hospital / Long-stay unit	0	2	1	0	1	0	1	1	6	+5	12
Residential institution	96	5	4	6	3	8	5	10	49	+39	186
Community outbreak	164	18	6	1	4	8	5	0	0	0	206
Other healthcare services	21	1	1	1	3	3	2	2	11	+9	45
Hotel	8	1	0	0	1	0	2	0	0	0	12
Guest house/ B&B	1	0	0	0	0	0	0	0	0	0	1
Restaurant / Cafe	39	2	2	0	0	0	4	7	2	-5	56
Public house	17	0	1	0	0	0	1	3	2	-1	24
Social gathering	48	3	1	0	2	1	4	1	1	0	61
Retail outlet	20	0	2	4	0	0	1	2	4	+2	33
Workplace	223	20	19	8	9	5	9	10	26	+16	329
Travel related	25	1	1	1	2	2	3	0	0	0	35
Transport	9	1	0	1	0	0	2	0	0	0	13
Private house: family outbreaks	4410	624	238	278	327	161	101	40	18	-22	6197
Private house: general outbreaks	265	23	23	9	6	9	8	9	2	-7	354
Extended family	134	20	9	8	13	10	11	6	21	+15	232
Childcare Facility	77	2	5	5	2	5	6	5	7	+2	114
School*	182	18	13	14	19	17	21	11	3	-8	298
University/College**	22	4	4	2	0	0	0	0	0	0	32
Religious/Other ceremony	15	2	1	1	1	2	2	2	1	-1	27
Sporting activity/fitness	27	0	0	0	1	0	0	0	0	0	28
Other recreation activity	1	0	0	0	0	0	0	0	0	0	1
Personal grooming service	5	0	0	0	0	1	1	0	0	0	7
Other	57	2	2	0	1	3	3	0	3	+3	71
Unknown	1	0	0	0	0	0	0	0	0	0	1
Not specified	1	0	0	0	0	0	0	0	1	+1	2
Total	6003	767	348	351	407	253	213	154	226	+72	8722

*These outbreaks are outbreaks associated with school children +/- or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks.

**These outbreaks are associated with a university/college location and do not include outbreaks among third level students that occurred at other locations.

Note: Data are provisional

COVID-19 Outbreaks/Clusters in Residential Facilities and Hospital settings in Ireland

A summary of outbreaks linked to nursing homes, acute hospitals, community hospital/long-stay units, and other residential institutions is shown in Figure 2 (A-D), in the subsequent “Focus” sections and Tables 2-5.

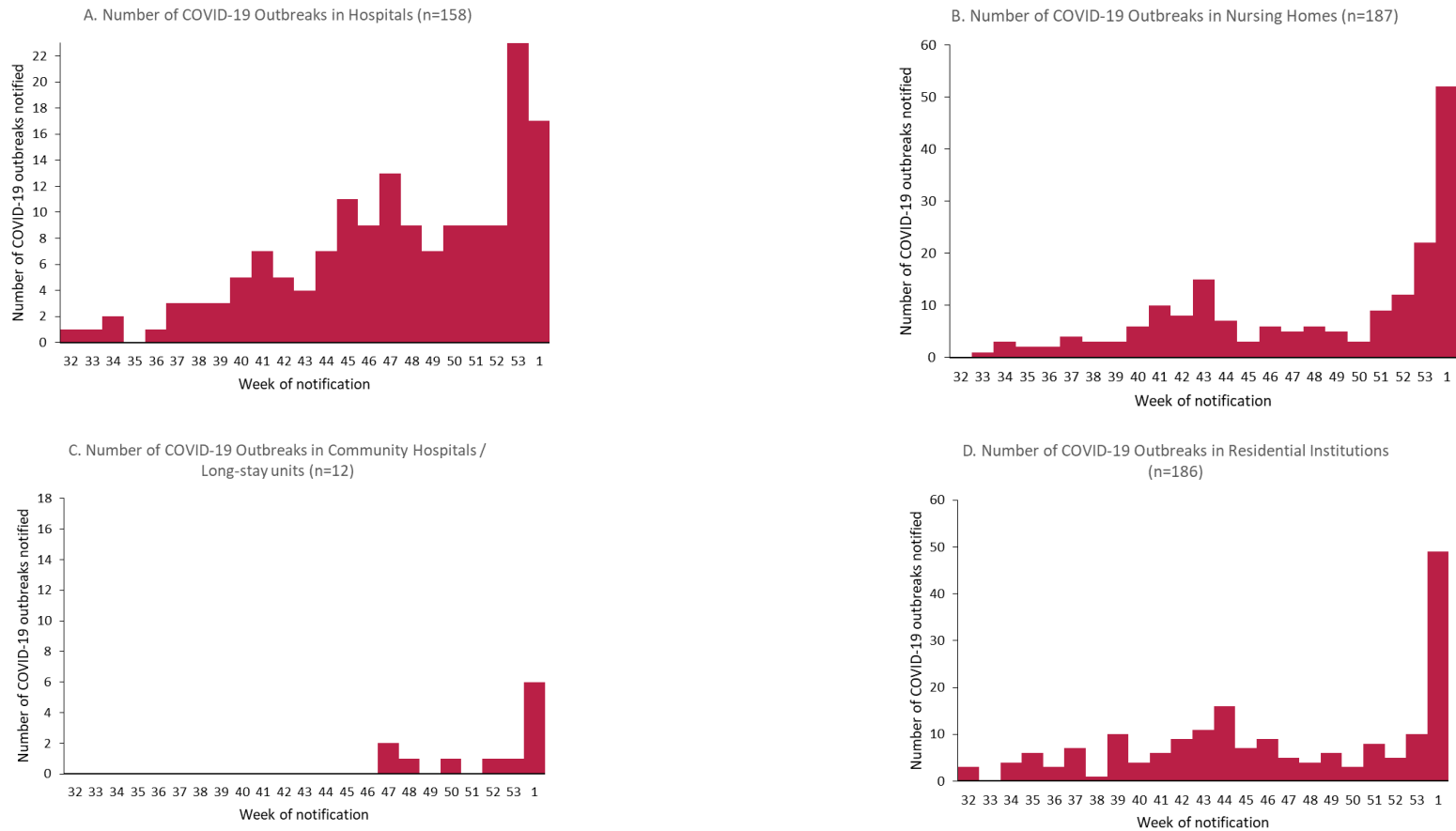


Figure 2 A-D: Epi-curve of COVID-19 outbreaks in (A) Acute Hospitals, (B) Nursing Homes, (C) Community Hospitals/Long-stay units and (D) Residential institutions notified in Ireland by week of notification, from 02/08/2020 to midnight on 09/01/2021. *Data source: CIDR.*

Note: Data are provisional

Focus on Nursing Homes and Community Hospitals

There have been **500** outbreaks in nursing homes and community hospital/long stay units, with **9,113** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 09/01/2021, **199** outbreaks in nursing homes or community hospital/long-stay units have been notified and 123 of these outbreaks remain open. A total of **2,716 laboratory confirmed cases** linked with outbreaks in nursing homes or community hospital/long-stay units have been notified. Of those cases, 158 were hospitalised, two were admitted to ICU, and 187 laboratory confirmed cases linked to outbreaks in these settings died (Table 3).

Cases were reported to be a healthcare worker (HCW) in 910 cases, not a HCW in 992 cases and HCW status was unknown for the remaining cases (Figure 3).

There were 831 laboratory confirmed COVID-19 cases linked to 65 outbreaks in nursing homes and community hospital/long-stay units notified by HSE East (Table 4).

There were 58 new outbreaks reported in nursing homes (n=52) and community hospital/long-stay units (n=6) during week 1.

Table 2: Number of COVID-19 outbreaks and cases[†] in nursing homes and community hospital/long-stay units in Ireland, from 02/08/2020 to midnight on 09/01/2021. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-1)				
	Week 1	Week 1 outbreaks: Range in no. of cases [#]	Week 32-1	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 1	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Nursing home	52	0-53	187	112	0-83	311	2630	155	<5	184
Community Hospital/Long-stay unit	6	0-12	12	11	1-54	12	86	<5	<5	<5
Total	58	0-53	199	123	0-83	323	2716	158	<5	187

[‡]Case numbers fewer than 5 are not presented here

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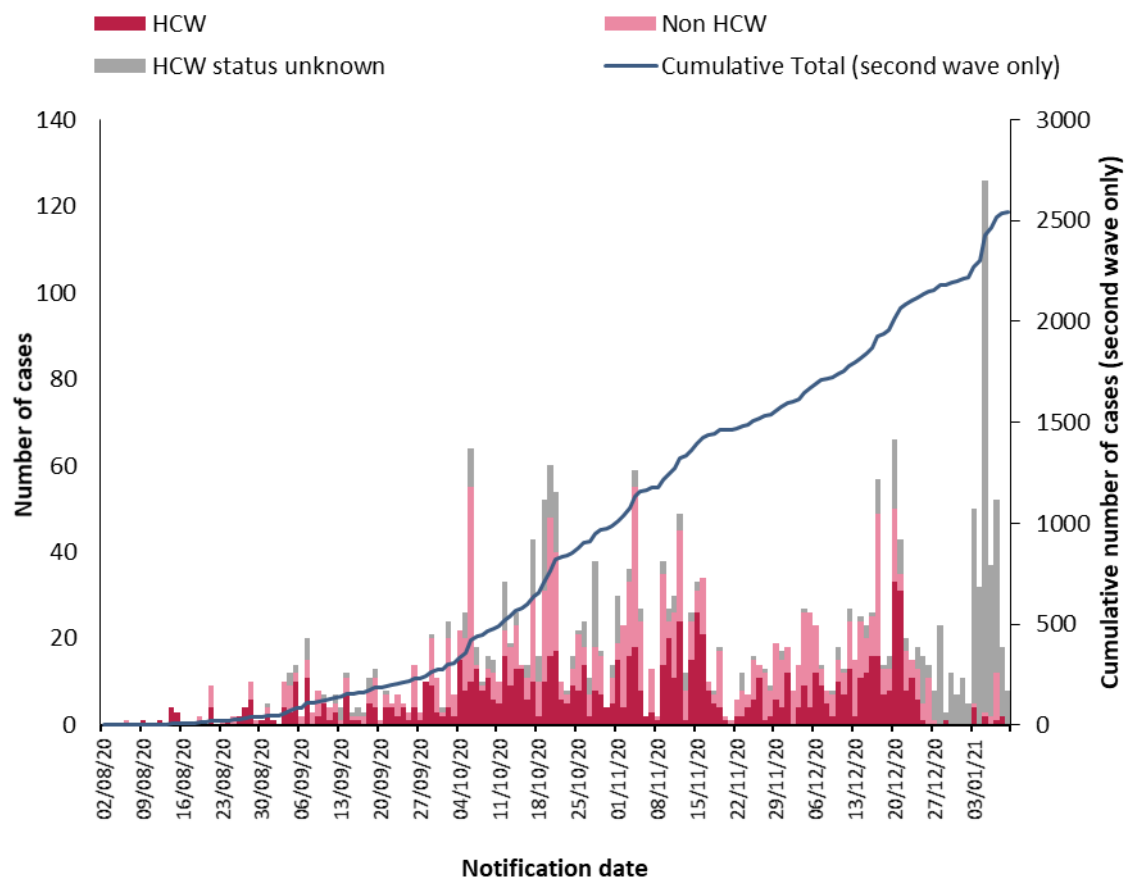


Figure 3: Epi-curve of confirmed COVID-19 cases linked to outbreaks in nursing homes and community hospital/long-stay units by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to midnight 09/01/2021. *Data source: CIDR*

Note: Data are provisional

Focus on Acute Hospitals

There were **261** outbreaks in acute hospitals, with **2,947** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 09/01/2021, **158** outbreaks in acute hospitals have been notified and 84 of these outbreaks remain open. A total of **1,819 laboratory confirmed cases** linked with outbreaks in acute hospitals have been notified. Of those, 37 were admitted to ICU and 147 died (Table 5). Cases were reported to be a healthcare worker (HCW) in 778 cases, not a HCW in 731 cases and HCW status was unknown for the remaining cases (Figure 4).

There were 17 new outbreaks reported in acute hospitals during week 1

Table 3: Number of COVID-19 outbreaks and cases[‡] in acute hospital settings in Ireland, from 02/08/2020 to midnight on 09/01/2021. *Data source: CIDR*

Outbreak location: Acute Hospitals	Number of outbreaks notified					Laboratory confirmed cases linked to outbreaks (week 32-1)			
	Week 1	Week 1 outbreaks: Range in no. of cases	Week 32-1	Number open	Open outbreaks: Range in no. of cases	Cases notified in week 1	Total cases	Total ICU cases	Total number of deaths
	17	0-20	158	84	0-138	69	1819	37	147

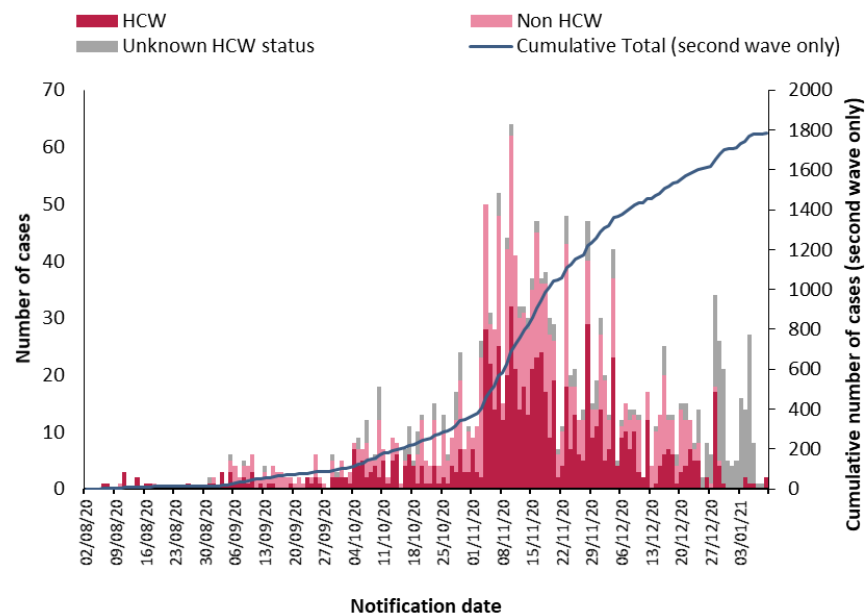


Figure 4: Epi-curve of confirmed COVID-19 cases linked to outbreaks in acute hospitals by healthcare worker (HCW) status and by date of notification, and cumulative number of confirmed cases during the second wave of infection by date of notification, from 02/08/2020 to 02/01/2021. *Data source: CIDR*

Note: Data are provisional

Focus on Residential Institutions¹

There were **297** outbreaks in residential institutions, with **1,519** linked laboratory confirmed COVID-19 cases, notified in Ireland since 01/03/2020.

From 02/08/2020 to 09/01/2021, **142** outbreaks in residential institutions have been notified and 63 of these outbreaks remain open. There were **590 laboratory confirmed cases** linked with outbreaks in residential institutions. Of those, 23 cases linked to outbreaks in residential facilities were hospitalised, 1 was admitted to ICU and 64 died (Table 6). The majority of residential institution outbreaks were notified in centres for disabilities, with **87** outbreaks and **364** linked cases notified since week 32.

There were forty new outbreaks reported in residential institutions during week 1:

- Twenty-one outbreaks were in centres for disabilities
- Two outbreaks were in Children's / TUSLA residential centres and two in mental health facilities
- The location of 15 residential institution outbreaks were not specified

Table 4: Number of COVID-19 outbreaks and cases[‡] in residential institutions in Ireland, from 02/08/2020 to midnight on 09/01/2021. *Data source: CIDR*

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-1)				
	Week 1	Week 1 outbreaks: Range in no. of cases [#]	Week 32-1	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 1	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths
Centre for disabilities	21	0-8	87	33	0-11	29	364	11	<5	<5
Children's / TUSLA residential centre	2	0-6	13	6	0-2	6	31	<5	<5	<5
Mental health facility	2	n/a	12	3	n/a	<5	77	<5	<5	<5
Other	0	n/a	9	4	0-13	<5	34	<5	<5	<5
Not Specified	15	0-29	21	17	3-3	58	84	5	<5	<5
Total	40	0-29	142	63	0-13	93	590	23	<5	6

#n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

‡Case numbers fewer than 5 are not presented here

¹ This section focusses on the following residential settings: Centres for disabilities, Children's/TUSLA residential centres and mental health facilities. Homeless services, addiction services, direct provision centres and prisons are reported in the Focus on Vulnerable Populations section.

Note: Data are provisional

COVID-19 Outbreaks in Other Vulnerable Populations

This brief overview of COVID-19 outbreaks in vulnerable populations/settings only includes outbreaks involving the Roma community, Irish Traveller community, outbreaks in Direct Provision Centres, facilities for the homeless/those with addiction issues and prisons notified up to midnight on 09/01/2021 (Table 7).

There were ten new outbreaks reported in vulnerable populations during week 1:

- Four in people with addictions
- Three among Irish with 15 confirmed linked cases
- Three in prisons with four confirmed linked cases

Table 5: Number of COVID-19 outbreaks in settings involving vulnerable populations, including the Roma community, Irish Traveller community, outbreaks in Direct Provision Centres, facilities for the homeless/those with addiction issues and prisons notified from week 32 (week commencing 02/08/2020) to midnight on 09/01/2021 and laboratory confirmed cases[†] linked to these outbreaks. *Data source: CIDR*

Vulnerable populations	Number of outbreaks notified					Laboratory confirmed cases [†] linked to outbreaks (week 32-1)				
	Week 1	Week 1 outbreaks: Range in no. of cases [#]	Week 32-1	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 1	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths*
Roma community	0	n/a	9	7	3-74	<5	149	9	<5	<5
Irish Travellers	3	0-13	83	47	0-66	15	1214	53	<5	<5
Direct provision centres	0	n/a	21	6	2-29	<5	161	<5	<5	<5
Homeless [^]	0	n/a	7	1	2-2	<5	15	5	<5	<5
People with addictions	4	n/a	6	4	n/a	<5	33	<5	<5	<5
Prisons	3	0-4	6	4	9-9	<5	39	<5	<5	<5
Total	10	0-13	132	69	0-74	21	1611	69	8	<5

[^] Homeless facilities include some facilities that provide long term supported accommodation. Also includes staff of homeless facilities.

[#]n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

[‡]Case numbers fewer than 5 are not presented here

Note: Data are provisional

COVID-19 Outbreaks in Workplaces

In total, **329** COVID-19 outbreaks in workplaces² have been notified from 02/08/2020 up to midnight on 09/01/2021. Since week 32, **60** COVID-19 outbreaks have been notified in businesses associated with the production or processing of food and beverages, of which **37** were in meat/poultry/fish plants in all HSE areas.

There were **26 COVID-19 workplace outbreaks notified during week 1:**

- Eight outbreaks were associated with the Defence/Justice/Emergency services
- Five outbreaks were associated with the Commercial sector services
- There were four Office-based outbreaks
- There were four outbreaks related to Food production
- Other outbreaks occurred in Manufacturing (n=3) and 'Other' (n=2)

Table 6: Number of COVID-19 workplace outbreaks notified from 02/08/2020 to midnight on 09/01/2021 and laboratory confirmed cases[‡] linked to workplace outbreaks.

Workplace outbreaks	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-1)				
	Week 1	Week 1 outbreaks: Range in no. of cases [#]	Week 32-1	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 1	Total cases	Total hospitalised cases	Total ICU cases	Total number of deaths [*]
Meat/poultry Production and Processing	2	0-1	37	8	3-75	<5	650	9	<5	<5
Other food/beverage Production and Processing	2	0-2	23	6	0-37	<5	184	<5	<5	<5
Construction industry ^{**}	0	n/a	51	8	0-11	<5	186	<5	<5	<5
Commercial	5	0-9	86	20	0-17	6	390	<5	<5	<5
Manufacturing	3	3-10	34	14	0-14	5	170	6	<5	<5
Office-based	4	0-3	45	8	0-22	<5	137	<5	<5	<5
Defence/Justice/Emergency services	8	0-6	27	14	1-6	12	90	<5	<5	<5
Other Workplace [^]	2	0-2	25	7	2-6	<5	71	<5	<5	<5
Total	26	0-10	329	86	0-75	33	1881	29	<5	<5

^{**}Cases linked to some construction site outbreaks may reside in Northern Ireland and consequently will be notified in that jurisdiction. These cases will not be included in the case numbers for Ireland. [^]"Other workplace" includes businesses that do not fit in the above workplace categories. #n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6) ‡Case numbers fewer than 5 are not presented here

² Workplace outbreaks exclude the following workplaces: hospitals, residential facilities, hotels, public houses, retail outlets, and other settings (outbreaks in GP practices and outbreaks associated with home carers). These are reported under those headings.

Note: Data are provisional

COVID-19 Outbreaks associated with school children (+/- staff), universities/colleges and childcare facilities

In total, **502** COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities have been notified from 02/08/2020 up to midnight on 09/01/2021.

During week 1, there were **10** COVID-19 outbreaks associated with school children +/- staff, **seven** COVID-19 outbreaks associated with childcare facilities.

Table 7: Number of COVID-19 outbreaks associated with school children (+/- staff), universities/colleges/third level students and childcare facilities notified to midnight on 09/01/2021 and laboratory confirmed cases[‡] linked to these outbreaks.

Outbreak location	Number of outbreaks notified					Laboratory confirmed cases [‡] linked to outbreaks (week 32-1)				
	Week 1	Week 1 outbreaks: Range in no. of cases [#]	Week 32-1	Number open	Open outbreaks: Range in no. of cases [#]	Cases notified in week 1	Total cases	Total hospitalised cases	Total ICU cases ^{***}	Total number of deaths
School*	3	0-2	298	95	0-48	10	1259	8	<5	<5
University/college/third level students**	0	n/a	90	33	2-190	<5	1006	12	<5	<5
Childcare facility	7	1-7	114	32	0-22	8	554	<5	<5	<5
Total	10	0-7	502	160	0-190	18	2819	24	<5	<5

*These outbreaks are outbreaks associated with school children +/- or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks

**These outbreaks also include outbreaks among third level students that may have occurred in other locations, such as private houses or social gatherings, and may not be directly linked to a University/college location

#n/a is used where there were no outbreaks in a category or where there are no confirmed cases currently linked to any outbreak in that category (see technical note 6)

‡Case numbers fewer than 5 are not presented here

Note: Data are provisional

Appendices
Appendix 1

Table A: Number of COVID-19 outbreaks notified in Ireland by outbreak location and closure status, to midnight 09/01/2021, N=10,988

Outbreak Location	Outbreak closure status (all outbreak classifications)		
	Closed	Open	Total
Hospital	177	84	261
Nursing home	346	112	458
Community Hospital/Long-stay unit	31	11	42
Residential institution	281	83	364
Other healthcare service	21	25	46
Private house*	2783	5287	8070
Workplace	294	86	380
Travel related	56	13	69
Transport	8	5	13
Extended family	131	140	271
Childcare facility	82	32	114
Community outbreak	113	108	221
Hotel	11	3	14
Guest house/ B&B	1	0	1
Public house	21	8	29
Restaurant / Cafe	43	14	57
Social gathering	43	19	62
Retail outlet	23	15	38
School**	203	95	298
University/college***	29	3	32
Religious/Other ceremony	14	13	27
Sporting activities/fitness	28	0	28
Other recreation activity	1	0	1
Personal grooming service	4	3	7
Pet farm / Petting zoo	0	0	0
Other	63	19	82
Unknown	0	1	1
Not specified	1	1	2
Total	4808	6180	10988

*It is common practice not to close private house outbreaks on CIDR due to the large volume of these types of outbreaks on CIDR

**These outbreaks are outbreaks associated with school children +/- or school staff. Transmission of COVID-19 within the school has not necessarily been established in these outbreaks.

***These outbreaks are associated with a university/college location and do not include outbreaks among third level students that occurred at other locations

Note: Data are provisional

Appendix 2 Technical Notes

1. Data are based on statutory notifications and were extracted from the National Computerised Infectious Disease Reporting (CIDR) system. Data are provisional and subject to ongoing review, validation and update. As a result, figures in this report may differ from previously published figures.

2. For surveillance purposes, the following COVID-19 outbreak definition is used for notifying COVID-19 outbreaks/clusters:

Confirmed*

- **There is a cluster/outbreak, with two or more cases of laboratory confirmed COVID-19 infection regardless of symptom status. This includes cases with symptoms and cases who are asymptomatic.**

OR

- **There is a cluster/outbreak, with two or more cases of illness with symptoms consistent with COVID-19 infection (as per the COVID-19 case definition), and at least one person is a confirmed case of COVID-19.**

* From September 21st 2020, suspected COVID outbreaks should be reported with the disease category 'Acute Respiratory Infection (ARI)'. If one or more cases linked to the outbreak are subsequently confirmed as COVID-19, the ARI outbreak should be reclassified to being a COVID-19 outbreak. Outbreaks of suspected COVID-19 which were notified before September 21st 2020, and met the previous COVID-19 outbreak definition should remain as COVID-19 outbreaks on CIDR.

The COVID-19 case definition is detailed on the Health Protection Surveillance Centre (HPSC) website: <https://www.hpsc.ie/a-z/respiratory/coronavirus/novelcoronavirus/casedefinitions/>

3. This report includes confirmed and suspected COVID-19 outbreaks.

4. An "Open" or "Closed" outbreak is defined as an outbreak where the outbreak status is "Open" or "Closed" on CIDR. In order to declare an outbreak "Closed" the outbreak location should not have experienced any new cases of infection which meet the case definition for a period of 28 days (two incubation periods).

5. Outbreak type (family/general) indicates whether an outbreak is confined to a family (family outbreak) or affects members of more than one household (general outbreak).

6. The "range in number of cases" presented in Tables 3, 5, and 6-9 is based on laboratory confirmed cases linked to an outbreak in CIDR. The priority is to notify outbreaks to CIDR in a timely fashion and, while every effort is made to link cases to outbreaks as quickly as possible, there can sometimes be a delay in linking cases to the outbreak. Ranges in number of cases that include "0" include outbreaks that currently have no linked cases. Data in CIDR are continuously reviewed and updated and this includes the identification and linking of outbreak-associated cases.

Note: Data are provisional